

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 3 and 4-10 are pending, Claims 1, 2 and 4 having been canceled without prejudice or disclaimer, and Claims 3 and 5-10 having been amended by way of the present Amendment. The subject matter of Claim 1 has been included in each of Claims 3 and 5-10, and therefore, no new matter is added.

In the outstanding Office Action, Claims 1, 7 and 9 were objected to; Claims 1-2 and 7-9 were rejected as being anticipated by Saito (U.S. Patent No. 4,989,262); Claim 3 was rejected as being unpatentable over Saito; Claims 4 and 5 were rejected as being unpatentable over Saito in view of Terai et al. (JP 04-047,705); Claim 10 was rejected as being unpatentable over Saito in view of Mitsuo (JP 05/160,762); and Claim 6 was indicated as containing allowable subject matter. Applicants appreciatively acknowledge the identification of allowable subject matter.

The cancellation of Claim 1 and amendment of Claims 7 and 9 has addressed the objections to these claims.

Before turning to the prior art rejections, it should first be noted that the subject matter of Claims 1 and 9 has been incorporated into amended Claim 3. Likewise, original Claim 1 has been incorporated into Claims 5-10, as amended.

Claim 7 stands rejected as being anticipated by Saito. Applicants respectfully traverse the rejection. Among other things, the radio communication terminal of Claim 7 includes a radiated noise predictor that includes an amplitude/phase adjustor that adjusts the amplitude and phase of a received signal from a second receiver to generate a pseudo interference signal. The radiated noise predictor also includes a control part that controls the amplitude and phase adjustments by an amplitude/phase adjustor based on an output from an adder

during the transmission interruption period of the transmitting side so that the pseudo interference signal and the output from the first receiver cancel one another. Moreover, the control part controls the amplitude and phase adjustments during the transmission interruption period of the transmitting side so that the output from the first receiver and pseudo interference signal cancel one another.

It is respectfully submitted that this feature is not taught in Saito. Although the Office Action does not point to a particular part in Saito regarding this feature, it is believed that at column 4, lines 6-11, Saito explains that the phase and the amplitude of the pseudo interference signal are adjusted while a desired signal and undesired signal exist simultaneously (column 4, lines 6-11). Moreover, this passage indicates that the signal detected at the antenna that may be time-coincident with the signal on the summing amplifier 11, no harmful effect occurs because the signals from the low pass filters 17 and 18 are both indicative of errors (see, e.g. Figure 1). Thus, because amended Claim 7 requires the control part to control the amplitude and phase adjustments of the amplitude/phase adjustor based on output from the adder during transmission interruption period of the transmitting side, and Saito operates on the opposite principle, namely the presence of both signals simultaneously, it is respectfully submitted that Saito does not teach or suggest the control part of amended Claim 7. Consequently, it is respectfully submitted that amended Claim 7 patentably defines over Saito.

With regard to Claim 8, it is first noted that Claim 8 finds non-limiting support in the embodiment of Figure 9. As such, a plurality of adders (22A1 and 22A2) provide a mechanism for canceling radiated noise components in the output of the plurality of receivers with a plurality of pseudo interference signals respectively. The output of the plurality of adders are used as effective signals by the diversity receiver 260 to produce a desired signal.

The outstanding Office Action asserts that the interference canceller (10-1) includes a plurality of adders (11-1 ... 11-n) each corresponding to one of a plurality of receivers. Actually, in Saito, radiated noise components that are output from a receiver 2 are canceled by way of the pseudo interference signals in a plurality of interference cancellers 10-1 to 10-n. Therefore, it is respectfully submitted that Saito does not disclose the claimed structure in Claim 8. Moreover, Claim 8 requires a plurality of adders to cancel the radiated noise component in each received signal, while Saito relies on a plurality of interference cancellers 10-1 to 10-n. Therefore, it is respectfully submitted that Saito does not disclose all the elements of amended Claim 8. Claim 9 has been amended to depend from Claim 8, and therefore is believed to patentably define over Saito for at least the same reasons discussed above with regard to Claim 8.

Amended Claim 3 includes the subject matter of Claims 1, 3 and 9. Claim 3 includes an interference canceller having a band converting part that is connected to electronic equipment. This band converting part converts the radiated noise from the electronic equipment to the same band as that of the output received signal of the receiver. In a non-limiting example, Figure 2 shows such a configuration, where the electronic equipment 30, provides the radiated noise to the band converting part 22c. However, this feature is simply not taught in Saito. Therefore, it is respectfully submitted that Saito does not disclose all the elements of Claim 3.

Claim 5 is directed to a radio communication terminal that includes a memory for storing a radiated noise component received by the receiver during a transmission interruption period at a transmitting side. A radiated noise predictor includes an adaptive filter for generating pseudo interference signal by adaptively filtering the radiated noise component that is read out from the memory. While the outstanding Office Action recognizes Saito does not disclose this feature, it is also respectfully submitted that Terai does

not disclose this feature. Moreover, Terai describes the use of coefficients of an adaptive filter 7 that are determined so as to cancel noise components in the output of an adder 8 during a transmission interruption period. These coefficients are then stored in memory. However, Terai does not discuss anything about storing the radiated noise component nor generating pseudo interference signal by adaptively filtering the radiated noise component that is read out from the memory. Therefore, it is respectfully submitted that Claim 5, as amended, patentably defines over the asserted prior art.

With regard to Claim 6, Applicants appreciatively acknowledge the identification of allowable subject matter in Claim 6 and, therefore, have drafted Claim 6 in independent form.

With regard to Claim 10, the Office Action asserts that Mitsuo discloses the use of a received signal that is multiplied with coefficients by multipliers M0 to MN and the multiplied results are summed so that the coefficients are controlled based on the summed result. However, Mitsuo relates to an echo canceller in which a component of the received signal $a(n)$ that is leaked via a hybrid 3 to the transmitting terminal 11 is canceled by a pseudo echo signal $w(n)$ that is produced by filtering the received signal $a(n)$. A shift register 6, multipliers M0 to MN, and an adder 9 work cooperatively as a FIR filter, whose coefficients are controlled so that the output of the adder 10 becomes minimum.

In contrast, Claim 10 includes a first receiver, a second receiver and an interference canceller that has a radiated noise predictor for generating a pseudo interference signal base on the radiated noise produced by an electronic equipment. An adder is used for adding the received signal and the pseudo interference signal to cancel the radiated noise component in the received signal. In a non-limiting example, Figure 10 shows such a system. Thus, it is respectfully submitted that Mitsuo does not disclose the structure in Claim 10, including the interference canceller as claimed.

Application No. 10/765,830
Reply to Office Action of May 3, 2006


Consequently, in view of the present Amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 3 and 5-10, as amended, patentably defines over the asserted prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

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